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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/035,944	03/06/1998	JOHN G. FREED	027575-152	5377
24112	7590	04/05/2006	EXAMINER	
COATS & BENNETT, PLLC			WEST, LEWIS G	
P O BOX 5			ART UNIT	
RALEIGH, NC 27602			PAPER NUMBER	
			2618	
DATE MAILED: 04/05/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/035,944

Applicant(s)

FREED, JOHN G.

Examiner

Lewis G. West

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 March 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

Applicant's arguments with respect to claims 25-41 have been considered but are moot in view of the new ground(s) of rejection. New rejection is necessitated by the fact that all previous claims have been cancelled and a completely new set of claims added.

Applicant has claimed essentially the same invention, the rejection of which has been upheld by the Board of Patent Appeals and Interferences, having only added the limitation that the noise is from the commonly located transmitter. The art used against the previous claims still applies, as both references, which have been held to be both analogous and combinable by the Board, involve determining and adjusting an third order input intercept point (IIP3). The commonly located transmitter noise is addressed in Rich, wherein it is directly stated that the type of noise addressed in the system may be desense, which is interference in a receiver from a commonly located transmitter, see the rejection below.

Further no support is provided for the limitation of a commonly located transmitter power being used. The cited portions merely cite operations of a transmitter, receiver and a low noise amplifier, but in no way provide support for any specific structure as claimed. Therefore such arguments are moot as they are based on new matter.

Drawings

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the drawing are informal, characters as well as the lead lines, lines in diagrams, and outlines of the flow charts in all figures are unprofessionally hand drawn.

Drawings must be supplied in accordance with all the guidelines set forth 37 CFR 1.84 in order

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to be considered responsive to this office action. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the transceiver and the transmitter must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. The drawings in their present form show only a CDMA receiver system.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25-41 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no support provided for using the transmit power of a transmitter that is part of a transceiver in the claimed process. The cited portions merely cite operations of a transmitter, receiver and a low noise amplifier, but in no way provide support for any specific structure as claimed. The portions indicated by applicant in no way support these limitations, and applicant may not add new matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 25-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Younis (US 6,134,430) in view of Rich (US 5,758,271).

Regarding claim 25, Younis discloses a method of adjusting the third order input intercept point (IIP3) of a low noise amplifier in a transceiver having a transmitter, a receiver, and a processor, comprising: detecting at least high and low transmit powers of a transmitter; and if the transmit power is high, setting the IIP3 to a maximum level. (Col. 13 lines 13-39) But does not expressly disclose adjustment based on the commonly located transmitter. Rich discloses a similar system addressing the design issues of a third order intercept point wherein the noise from a transmitter in the same device (desense) is compensated for ((See col. 3 lines 29-38)) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the method of Younis is equally applicable in the case of desense, as the suggestion lies in Rich that IIP3 adjustment is applicable to many type of noise, and Younis that adjusting the intercept point based on noise “minimizes degradation in the performance of [the] receiver.

Regarding claim 29, Younis discloses method of operating a transceiver having a transmitter operative to transmit a signal at a variable transmit power including at least a high and a reduced power level, a receiver operative to receive a signal and including a low noise amplifier having an adjustable gain and an adjustable third order input intercept point (IIP3), and a processor operative to compute an error rate in the signal received by the receiver, comprising: detecting a signal strength of the received signal; and

if the transmitter is transmitting at or above the high power level and the received signal strength is below a signal strength threshold, operating the low noise amplifier at maximum gain

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and maximum IIP3. But does not expressly disclose adjustment based on the commonly located transmitter. Rich discloses a similar system addressing the design issues of a third order intercept point wherein the noise from a transmitter in the same device (desense) is compensated for (See col. 3 lines 29-38) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the method of Younis is equally applicable in the case of desense, as the suggestion lies in Rich that IIP3 adjustment is applicable to many type of noise, and Younis that adjusting the intercept point based on noise “minimizes degradation in the performance of [the] receiver.

Regarding claim 33, Younis discloses a transceiver, comprising:

a transmitter operative to transmit a signal at a variable transmit power including at least a high and a low power level; a receiver operative to receive a signal and determine its signal strength, and including a low noise amplifier (LNA) having an adjustable gain and an adjustable third order input intercept point (IIP3); and a processor operative to compute an error rate in the signal received by the receiver, and to adjust the IIP3 of the LNA in response to a transmitter's transmit power. But does not expressly disclose adjustment based on the commonly located transmitter. Rich discloses a similar system addressing the design issues of a third order intercept point wherein the noise from a transmitter in the same device (desense) is compensated for (See col. 3 lines 29-38) Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention that the method of Younis is equally applicable in the case of desense, as the suggestion lies in Rich that IIP3 adjustment is applicable to many types of noise, and Younis that adjusting the intercept point based on noise “minimizes degradation in the performance of [the] receiver.

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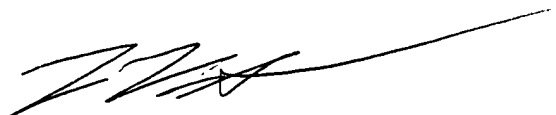
Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Freed US 6,487,419 is commonly owned and invented and also addresses the adjustment of a third order intercept point in the receiver based on the level of the signal transmitted by a commonly located transmitter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lewis G. West whose telephone number is 571-272-7859. The examiner can normally be reached on Monday-Friday 7:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lewis West
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